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Date: May 26, 2009

To: Audit and Finance Committee

From: Gary Ray, City Auditor *AK*

Subject: Audit of Southwest Ambulance Contract

Cc: Harry Beck, Fire Chief
Mary Cameli, Assistant Fire Chief

Pursuant to the Council-approved audit plan the City Auditor's Office has completed an audit of Fire Department's contract with Southwest Ambulance.

The purpose of this letter is to transmit the report to the Audit and Finance Committee. The report package consists of the report, 4 Corrective Action Plans (CAPs), and the Management Response.

We would like to thank Fire Department management and staff for their cooperation, professionalism, and assistance throughout the audit process.

If you have any questions please feel free to contact me at x3210 or Jason Taylor at x3635.

Audit Report

Department: Mesa Fire Department (MFD)

Audit Subject: Southwest Ambulance Contract

Report Date: April 15, 2009

Audit Period: July 2008 – March 2009

Purpose: The primary objectives of this audit were:

1. To determine whether the contract's terms are in-line with common or best practices, and are favorable to the City.
2. To determine whether the MFD is adequately administering the contract.
3. To determine whether Southwest Ambulance is in substantial compliance with the contract.

Scope: To accomplish this audit, we:

1. Compared Mesa's ambulance contract with other East Valley municipalities' ambulance contracts.
2. Reviewed professional literature related to emergency medical transportation performance measures.
3. Conducted interviews with various MFD personnel; representatives from Southwest Ambulance; and officials at the Arizona Department of Health Services (DHS), Bureau of Emergency Medical Services.
4. Reviewed recent contractual cost reimbursements and supporting data.
5. Reviewed ambulance response time data.
6. Reviewed information from DHS and the MFD's complaint files related to Southwest Ambulance's operations and performance.

Background: In March 2004, Mesa contracted with Southwest Ambulance to provide emergency medical transportation (i.e., ambulance) services. The initial contract term was for 3 years, and the City executed a 3-year renewal option in March 2007, extending the contract through 2010.

Contract Scope

The contract is only for transportation services, meaning the MFD is generally responsible for "first response" paramedic activities. Specifically, when a call is placed to 911, Mesa operators dispatch relevant calls to the Fire Department and Southwest Ambulance. When Southwest

Ambulance arrives at the incident scene, the ambulance crew reports to the Fire Department's Command Officer for possible patient care assignments. Southwest Ambulance generally assumes responsibility of patient care when the patient is ready to be loaded into the ambulance. However, in some cases a MFD paramedic will accompany the patient to the hospital, retaining responsibility of patient care throughout the transport.

Cost for Services

Mesa does not pay for Southwest Ambulance's services. Rather, Southwest Ambulance bills patients or their insurance. The rates are currently about \$711, plus \$14.73 per mile, \$158 per hour of standby waiting time, and the cost of disposable medical supplies. In addition, the contract includes various terms to limit incidental costs to the City, such as requiring Southwest Ambulance to replace/reimburse for disposable medical supplies, equipment, and pharmaceuticals used by the City's paramedics staff. Further, Southwest Ambulance reimburses the City for 911 dispatches and instances in which a MFD paramedic provides advanced life support services during ambulance transport (i.e., paramedic ride-ins).

Oversight

As with all ambulance service providers in Arizona, Southwest Ambulance's rates are established by DHS. DHS licenses all ambulance providers and establishes other operating standards, such as maximum response times; allowable service areas; facility, equipment, staff, and procedure quality; and even accounting systems and financial reporting criteria. In light of this regulation, most other municipalities within Maricopa County contract with a second party service provider for ambulance services (the notable exception is the City of Phoenix which provides ambulance service through its own fire department). There are essentially two private firms that provide basic and advanced life support ambulance services in the Phoenix metropolitan area: Southwest Ambulance and Professional Medical Transport, Inc.

Conclusion:

For the areas that we were able to test, we did not note any significant instances of noncompliance with the contract. However, data inaccuracies prevented us from assessing Southwest Ambulance's compliance with the contract's primary performance measure, which is response time to 911 calls. Various improvements to the City's computer-aided dispatch system and the MFD's data validation procedures are needed to resolve this problem.

We also identified areas for improvement in the contract's terms and the MFD's contract monitoring efforts. Our recommendations in these areas

are focused on ensuring continued contractor compliance and limiting the City's costs and liability. In brief:

- Future contract terms should include increased insurance requirements; improved performance measures; and additional enforcement mechanisms, such as liquidated damages for instances of poor performance.
- The MFD should better solicit available information for assessing Southwest Ambulance's performance, such as oversight information from DHS and feedback from transported patients. They should also document their contract administration efforts in following with city procedures.
- The MFD should more accurately recover reimbursements from Southwest Ambulance for MFD paramedic ride-ins.

Please see the attached Corrective Action Plans for detailed findings and recommendations.

Other Pertinent Information:

As discussed in the press release issued January 29, 2009, the MFD is currently working with Apache Junction, Gilbert, and Queen Creek to procure regional ambulance services. The municipalities' intent is to select one ambulance provider to serve the entire region, thus ensuring consistent service among the communities. The MFD's current intent is to enter into this new regional agreement, rather than renew its current contract with Southwest Ambulance in 2010.

As of the end of our audit, the regional participants were finalizing the scope of work for a request for proposals. We reviewed various scope of work drafts, and informally communicated the recommendations noted in this report regarding contractual terms. The MFD had incorporated our recommendations into the most recent draft that we reviewed.

Corrective Action Plan #1
Audit Subject: Southwest Ambulance Contract

April 2009

Title: Inferior Contract Terms

Observations: The terms of the City's ambulance contract do not adequately limit the City's costs and ensure the contractor's performance.

Discussion: Unlike other East Valley cities, Mesa's ambulance contract does not provide for the reimbursement of the City's contract administration costs. Scottsdale, Tempe, and Chandler all require their ambulance providers to essentially pay the salary of a contract manager position. Less than one full time equivalent position at Mesa currently administers the Southwest Ambulance contract. However, additional staff time may be needed to implement our other recommendations detailed in the other CAPs, or if Mesa continues its plans to enter into a regional ambulance contract.

The contract also lacks important mechanisms to limit the City's liability and to ensure contractor performance. Specifically:

- **Inadequate insurance requirements**—The minimum requirements for Southwest Ambulance's general and medical malpractice insurance are significantly lower than the City's self insurance retention. As a result of these shortfalls, the City could have to make an unnecessary payment from the retention if it were to be found secondarily liable for Southwest Ambulance's negligence. For example, if a large medical malpractice claim were to be filed, the City could have to pay up to \$1 million from the retention to supplement Southwest Ambulance's insurance, before the City's excess liability insurance policy would become effective.
- **Lack of performance measures**—As further explained in CAP #2, the only notable performance measure used in the City's contract is Southwest Ambulance's response time to service calls. However, the City's Contracts Administrator identified other measures in professional literature that might be beneficial in gauging the contractor's performance. These include patient and MFD paramedic satisfaction ratings, staff turnover rates, and safety evaluation criteria such as accident rates and equipment failure rates.
- **Lack of enforcement mechanisms**—The contract lacks effective mechanisms for ensuring contractor performance, including liquidated damages and performance securities or bonds. Liquidated damages provide the City an opportunity to receive cash reimbursement for contractor performance failures, thus providing additional incentive to the contractor to perform. Should the contractor fail to faithfully execute its obligations under the agreement, performance securities allow the City to be compensated for the cost of continuing to provide ambulance services while securing the services of another service provider.

Recommendations: Implementing any or all of the following recommendations would likely represent a significant scope change, in turn requiring the re-procurement of ambulance services. Therefore, the MFD should work closely with the City Attorney and Purchasing to determine which recommendations may be implemented now, and which should be reserved for a new contract.

1. The MFD should negotiate a contract provision requiring contractor reimbursement of contract administration costs.
2. The MFD should negotiate insurance coverage requirements that adequately protect patients and limit the City's liability, as recommended by the City Attorney's risk management representative.
3. The MFD should work with the City's Contracts Administrator and the Management Performance and Accountability Office to develop relevant performance measures and the related measurement procedures, and negotiate the inclusion of these measures into its ambulance contract. Areas to consider might include patient and MFD paramedic satisfaction ratings, staff turnover rates, and safety evaluation criteria such as accident rates and equipment failure rates.
4. The MFD should negotiate contract provisions for the assessment of liquidated damages for non-performance, and for the contractor to supply a performance bond or other type of performance security.

Corrective Action Plan #2

Audit Subject: Southwest Ambulance Contract

April 2009

Title: Response-time Measurement

Observations: The contract's only significant performance measure is whether Southwest Ambulance responds to emergencies within stipulated timeframes. However, inaccurate data prevented the MFD, Southwest Ambulance, and auditors from determining Southwest Ambulance's response times.

Discussion: The only significant performance measure outlined in the contract is whether Southwest Ambulance responds to emergencies within certain thresholds. Specifically, for more serious emergencies known as Code 3 incidents (in which lights and sirens are used), Southwest Ambulance must arrive at the incident scene within 9 minutes after being dispatched, at least 90 percent of the time. For less serious Code 2 calls, Southwest Ambulance must arrive within 16 minutes 90 percent of the time. Although Code 3 calls represent less than 5 percent of all calls, the MFD places significantly more importance on Southwest Ambulance's response to these calls, as they often involve patient survival.

Despite the significance of the Code 3 responses, the parties' ability to measure them has been hindered by information system limitations and inadequate data validation. Specifically:

1. The current version of the City's computer-aided dispatch (CAD) system does not contain a simple field to track ambulance Code 3 responses. Instead, dispatchers must follow additional steps to standardize their documentation of the Code 3 responses, generally in the midst of crisis situations. These additional steps increase the risk of human error. Further, the lack of a simple field makes it difficult to accurately isolate the ambulance Code 3 responses so that response times can be calculated. Ultimately, the CAD system's limitations resulted in the ambulance Code 3 data being completely unreliable for calendar year 2008 and the beginning of 2009.
2. The query used to isolate the Code 3 responses does not contain criteria to accurately classify mutual aid responses, in which various cities' fire and ambulance units respond across the cities' boundaries. As a result, responses unrelated to Mesa are sometimes measured for compliance, and vice versa. Although the impact of this is less significant than the other CAD limitations, the error contributed to the misstated Code 3 population.
3. Because the MFD did not initially attempt to validate its ambulance Code 3 data, it did not recognize the 2008 data errors for several months. Since that time, the MFD has attempted a data validation/cleaning process that involves reconciling ambulance Code 3 data with similar data obtained from Southwest Ambulance. Overall, this process should eventually produce

reasonably accurate ambulance Code 3 data. However, continuing obstacles include a lack of defined rules between Southwest Ambulance and the MFD regarding the treatment of data discrepancies; and a reliance on manual matching and calculations that could be automated.

As of the end of the audit, the MFD was still working with Southwest Ambulance to clean and validate data for the 3rd quarter of 2008, from which they hoped to calculate response times. Therefore, auditors were unable to determine Southwest Ambulance's compliance with the contract's response time performance measure.

- Recommendations:**
1. During the CAD system upgrade that is currently in process, the MFD should work with the Police Department's (PD's) Communications unit, the Information Technology Department (ITD), and the CAD system vendor to simplify the documentation for ambulance Code 3 calls. Possibilities may include adding an Event Type option for such calls, or creating a completely new field.
 2. The MFD should work with PD's Communications unit to ensure that dispatchers are adequately trained in documenting ambulance Code 3 calls. This recommendation applies to the current documentation process and to the revised process, when implemented.
 3. The MFD should work with ITD to ensure that the query used to generate the Code 3 population contains criteria to accurately classify mutual aid responses.
 4. The MFD should continue to develop, document, and implement a procedure for validating and cleaning ambulance Code 3 data and calculating response times. The procedure should specify such items as the data sources, documents, and validation methods used; and the roles and responsibilities for the MFD and Southwest Ambulance. The MFD should also incorporate the procedure into the current and future ambulance contracts to avoid any potential disputes with the contractor regarding response time calculations.
 5. In developing and implementing the data validation procedure noted above, the MFD should work with ITD to automate various tasks, thus reducing human error and staff time. At a minimum, tasks that should be examined include the matching of incidents between the MFD's and Southwest Ambulance's data, and the calculation of response times.

Corrective Action Plan #3
Audit Subject: Southwest Ambulance Contract

April 2009

Title: Contract Monitoring Improvements

- Observations:**
1. The MFD has not fully utilized available resources for monitoring Southwest Ambulance's performance, such as information requests and customer service surveys.
 2. The MFD does not adequately document its contract monitoring efforts, including known performance issues such as complaints lodged by MFD staff or patients.

- Discussion:**
1. The MFD's contract managers have not solicited information available to them to assess Southwest Ambulance's operations and performance. Specifically, the following information would provide the MFD with a more complete picture of Southwest Ambulance's actual and potential performance:
 - **Information from Southwest Ambulance**—The MFD's contract with Southwest Ambulance includes provisions requiring Southwest Ambulance to provide a variety of information related to their efforts to comply with the terms of the contract. Information that may be requested by the MFD, as needed, includes lists of ambulances and their station locations assigned to provide service under the contract; lists of dedicated field personnel; personnel training and certification reports; and annual financial reports.
 - **Information from the Department of Health Services**—As the agency that oversees ambulance providers, the Arizona Department of Health Services (DHS) maintains various performance records for Southwest Ambulance, including its own complaint investigations and annual ambulance inspections. Since this is public information, we requested and reviewed it during the audit. We noted no significant concerns. However, the MFD should periodically request updated information from DHS, to ensure that critical operational or performance issues do not go unnoticed.
 - **Customer feedback**—The MFD has never solicited customer/patient feedback regarding ambulance service, as allowed by the contract. While the contract does not require Southwest Ambulance to gather any type of customer feedback, working with Southwest Ambulance to develop and implement a customer survey process may provide valuable information about the transportation services as well as the MFD's pre-transportation operations.
 2. The MFD's contract managers have not followed city documentation procedures related to contract monitoring. Specifically, the City's Contract and Grant Monitoring procedure recommends development of a contract

master file. The master file should contain such information as a copy of the contract and any amendments or related agreements and correspondence material to the assessment of the contractor's compliance (e.g., performance reports, notifications of non-compliance, communication logs, meeting minutes, etc.). Such a system allows for thorough documentation of contractor performance, allows for easy transfer of knowledge should the contract manager change, and aids in the auditing of contractor performance and management.

To its credit, the MFD currently has a process in place to document complaints or concerns that MFD personnel may have with Southwest Ambulance's ambulance staff or field operations. The complaints that we reviewed did not necessarily reflect a critical performance problem, and MFD contract managers asserted that they consistently inform Southwest Ambulance about these complaints and any other performance concerns. However, the process used to notify Southwest Ambulance, as well as Southwest Ambulance's response, was not documented in any way. As a result, problem resolution is difficult to track and verify and reoccurring or accumulating problems could go unnoticed or could be challenged by Southwest Ambulance due to lack of adequate documentation.

- Recommendations:**
1. The MFD should request and review all available information that could be used to ensure contractor compliance, including relevant reports from Southwest Ambulance as specified in the contract, and complaint investigations and annual ambulance inspections from DHS.
 2. The MFD should work with Southwest Ambulance and the Management Performance and Accountability Office to develop and implement a process to obtain feedback from patients (using a survey or some other means) regarding Southwest Ambulance's performance.
 3. The MFD should develop a master file to track all contract performance and contract management related information. As part of the master file, the MFD should document all complaints including pre-hospital reports and performance-related concerns in writing following with the City's Contract Administration Procedure, and allow Southwest Ambulance the opportunity to respond in writing to document their efforts to remedy the concerns.
 4. The MFD's contract managers should attend the City's Contract Administration training class.

Corrective Action Plan #4

Audit Subject: Southwest Ambulance Contract April 2009

Title: Paramedic Ride-in Reimbursements

Observations: The reimbursement rate that Southwest Ambulance pays for paramedic ride-ins has not been increased according to the contract.

Discussion: The contract requires Southwest Ambulance to reimburse the City for instances in which a MFD paramedic provides advanced life support (ALS) services during ambulance transport. The original reimbursement amount was \$77.00 per paramedic ride-in, to be adjusted for cost of living increases made by the state Department of Health Services (DHS). However, the MFD failed to identify and apply cost of living increases since 2006, which would have increased the current ride-in reimbursement rate to \$93.37, instead of the \$84.55 currently being charged.

This failure to adjust the rate may have cost the City as much as \$12,000 in under-reimbursements during calendar year 2008, and may currently be costing the City as much as \$2,000 per month. However, neither Southwest Ambulance nor the MFD have identified the information needed to determine whether the total reimbursement amount should have been limited by a cap stipulated in the contract. Specifically, the contract limits the total number of ride-ins eligible for reimbursement to 20 percent of the total ALS transports provided by Southwest Ambulance. As of the end of the audit, both parties were trying to identify a count of ALS transports, which could then be used to identify the total amount of paramedic ride-in costs that may have been under-reimbursed.

- Recommendations:**
1. The MFD should monitor DHS's Web site to identify cost of living adjustments, and make corresponding adjustments to the paramedic ride-in reimbursement rate that is used to invoice Southwest Ambulance.
 2. The MFD should work with Southwest Ambulance to determine when the contractual cap on the paramedic ride-in reimbursements has been met each year.
 3. The MFD should work with Southwest Ambulance to determine and recover the total amount of paramedic ride-in costs that may have been under-reimbursed since 2006.



Date: May 12, 2009
To: Chris Brady, City Manager *CB*
Through: Harry Beck, Fire Chief
From: Mary Cameli, Assistant Chief
Subject: Response to Audit: Southwest Ambulance Contract

There was a recent audit completed by the City of Mesa Auditing Department on the Mesa Fire Department's ambulance contract. The audit was completed very thoroughly, professionally, and efficiently. All areas within the scope of the contract were evaluated. This was very helpful to the Fire Department by improving the accountability of the contract and enhancing our future contracts within the organization.

Attached are the action plans addressing the concerns listed in the audit results. The foundation for the action plans comes from four major review areas of the audit. Several of the items addressed have been included in our newest contract and the other concerns will be implemented immediately. Action plans have been developed for the following areas:

- Improved Contract Performance
- Paramedic Ride-in fees
- Response Time Measurements
- Monitoring Improvements

We will review the contract on a monthly basis to assure that the needs of our contractual agreement have been met. The audit has been a very beneficial tool for us in improving our processes and has been an asset to us in the development of our future transportation contract.

ACTION PLAN FOR:

Fire Department Ambulance Contract Audit

Charge:

Improved Contractor Performance

ISSUE	GOAL	ACTION PLAN	WHEN	WHO	STATUS
Inferior Contract Terms	Cost recovery for administrative oversight of contract	Negotiate provision in contract that requires contractor to reimburse MFD for contract administration costs	Development of new contract	Chief Hayes & Captain Ward	In Process
Inferior Contract Terms	Make sure contractors insurance is equal to or exceeds the City's insurance.	Work with City Risk Management to develop the insurance requirements	Development of new contract	Chief Hayes & Captain Ward	In Process
Inferior Contract Terms	Add performance measures	Contract Administrator to work with Management Performance and Accountability Office to develop appropriate measures	Development of new contract	Chief Hayes & Captain Ward	In Process
Inferior Contract Terms	Ensure contractor performance	Include liquidated damages for performance failures	Development of new contract	Chief Hayes & Captain Ward	In Process

ACTION PLAN FOR:

Fire Department Ambulance Contract Audit

Charge:

Improve Data for Response Times

ISSUE	GOAL	ACTION PLAN	WHEN	WHO	STATUS
Inaccurate Data for Code 3 response times	Collect accurate data for Code 3 response times.	<ul style="list-style-type: none">• Develop a written, agreed upon validation procedure with the contractor• Add a new event type with CAD upgrade• Train dispatchers to properly document code 3 calls• Work with ITD to ensure the query contains mutual aid responses• Work with ITD to automate process	Development of new contract & CAD Upgrade	Chief Hayes & Captain Ward	In Process

ACTION PLAN FOR:

Fire Department Ambulance Contract Audit

Charge:

Improve Contract Monitoring System

ISSUE	GOAL	ACTION PLAN	WHEN	WHO	STATUS
Document monitoring efforts	Document all performance issues, and request information from Transportation agency monthly	<ul style="list-style-type: none"> Keep all documentation of performance issues in Master File Random spot checks of ambulance availability within the city 	Immediately	Chief Hayes & Captain Ward	In Process
Document monitoring efforts	Request and review information from Department of Health quarterly	<ul style="list-style-type: none"> Review information gathered from DHS quarterly Keep this information in Master File Meet with Ambulance Provider to discuss issues discovered by DHS 	Immediately	Chief Hayes & Captain Ward	In Process
Document monitoring efforts	Request information from Ambulance provider yearly	<ul style="list-style-type: none"> Maintain current list of station locations, dedicated personnel, training and certification reports, and financial reports, in Master File 	Immediately	Chief Hayes & Captain Ward	In Process
Document monitoring efforts	Gather information on provider performance	<ul style="list-style-type: none"> Survey customers semi-annually on provider performance 	Immediately	Chief Hayes & Captain Ward	In Process
Document monitoring efforts	Understand how to monitor contract more efficiently	<ul style="list-style-type: none"> Attend the City's Contract Monitoring training 	Immediately	Chief Hayes & Captain Ward	In Process

ACTION PLAN FOR:

Fire Department Ambulance Contract Audit

Charge:

Paramedic Ride-in Reimbursements

ISSUE	GOAL	ACTION PLAN	WHEN	WHO	STATUS
Lost revenue due to lack of enforcement of DHS rate increase in previous years.	Recover ride-in costs that were under-reimbursed since 2006, and stay current on rate adjustments for transport fees set by Department of Health Services.	<ul style="list-style-type: none"> Work with Southwest Ambulance to recover under-reimbursed ride-in fees. Monitor DHS web site, quarterly, for cost of living adjustment that corresponds to transport fees MFD and SWA to define, in writing, the cap on ride-in reimbursements 	Immediately	Chief Hayes & Captain Ward	In Process